

Listing and Amendments to the Claims

1. (Original) A method for use in a receiver, the method comprising:
processing a received signal with a phase-locked loop (PLL);
generating a carrier frequency offset estimate as a function of a phase error signal of the PLL; and
detecting a false lock condition as a function of comparing the carrier frequency offset estimate to a closed loop value of the PLL.
2. (Original) The method of claim 1, wherein the processing step includes the step of setting the PLL in an open loop mode of operation.
3. (Original) The method of claim 1, wherein the generating step includes the steps of:
determining a rollover count value for the phase error signal;
determining a symbol count value of the received signal; and
generating the carrier frequency offset estimate from the determined rollover count value and determined symbol count value.
4. (Original) The method of claim 1, further comprising the step of updating the PLL with the carrier frequency offset estimate.
5. (Original) A receiver comprising:
a carrier tracking loop (CTL) for processing a received signal; and
a processor for estimating a carrier frequency offset as a function of a phase error signal of the CTL;
wherein the processor detects a false lock condition as a function of comparing the estimate of the carrier frequency offset to a closed loop value of the CTL.

6. (Original) The receiver of claim 5, wherein the CTL includes a rollover counter and a symbol counter accessible by the processor for use in estimating the carrier frequency offset.

7. (Original) The apparatus of claim 5, wherein the receiver is a set-top box.

Cancel claim 8.